

# IRRITABLE BOWEL SYNDROME – PROBABLY THE MOST COMMON GASTROINTESTINAL DISORDER





**10-15%**  
IT IS ESTIMATED THAT  
WORLDWIDE, AROUND 10-15%  
OF THE POPULATION SUFFER  
FROM IRRITABLE BOWEL  
SYNDROME.

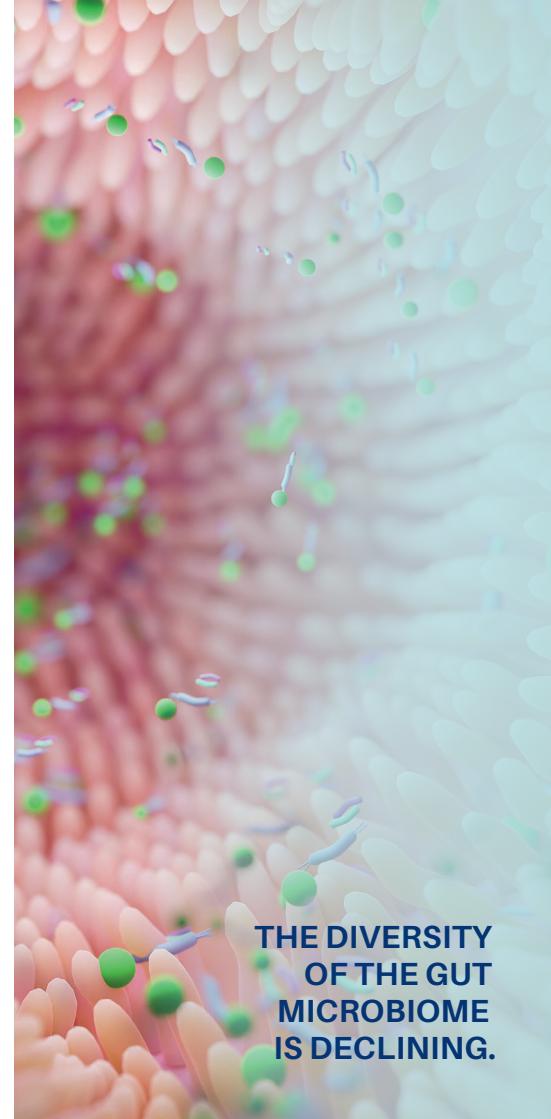
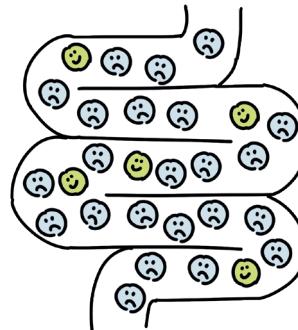
## IRRITABLE BOWEL SYNDROME

Irritable bowel syndrome (IBS) is likely the common disease of the gastrointestinal tract, with around half of all patients visiting their general practitioner for gastrointestinal complaints suffering from this condition. Typical symptoms include recurring abdominal pain, often accompanied by constipation, diarrhoea, and flatulence. It is estimated that around 10-15 % of the global population suffers from IBS, with women being more frequently affected than men. To diagnose IBS accurately, other potential causes

must first be ruled out, such as food intolerances or small intestinal bacterial overgrowth. To assist in identifying the underlying causes, biovis offers analyses of various parameters associated with IBS and gastrointestinal complaints.

## MICROBIOME CHANGES

Our gastrointestinal tract hosts trillions of microorganisms collectively known as the gut microbiome. These bacteria largely coexist in harmony with the body and play a crucial role in human health. However, not all gut bacteria exert positive effects on our well-being, and an imbalance between protective and harmful bacteria can result in health issues. Some bacteria produce metabolites that may provoke inflammation of the intestinal mucosa. In patients with IBS, there is often a noticeable reduction in the diversity of bacterial species within the gut microbiome.



**THE DIVERSITY  
OF THE GUT  
MICROBIOME  
IS DECLINING.**

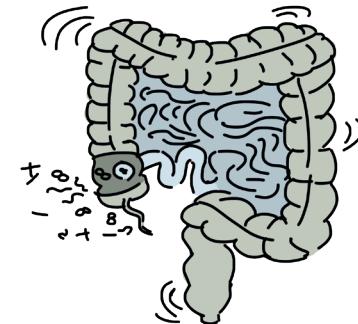


SIBO CAN PROMOTE INFLAMMATORY REACTIONS.

## SIBO

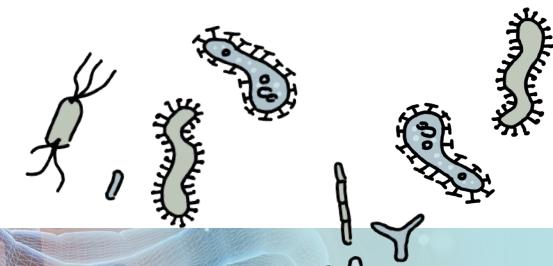
Typically, the intestinal microbiome resides predominantly in the large intestine. However, when an excessive number of bacteria migrate into the small intestine, it results in a condition known as small intestinal bacterial overgrowth (SIBO). This can lead to increased intestinal permeability, inflammatory responses, and decreased intestinal motility.

Detecting bacterial overgrowth can be straightforward using our **SIBO breath analysis**. For further details, consult your trusted healthcare professional.

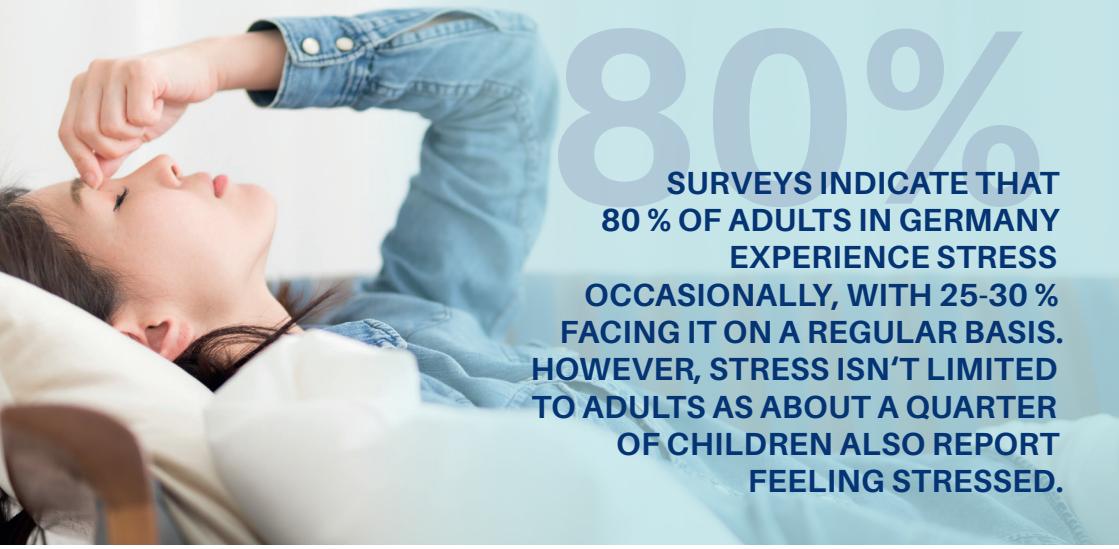


Intestinal bacteria play a crucial role in influencing the development and symptoms of IBS, underscoring the importance of microbiome diagnostics. If you wish to understand the status of your gut health, consider requesting a current microbiome profile from your doctor. Depending on your health condition, additional stool parameters may be recommended to obtain a comprehensive assessment. You will receive the required collection tubes, shipping materials, and sample collection instructions in an information pack. For any inquiries, please reach out to your trusted healthcare professional.

GET TESTED BY US NOW:



THE MICROBIOME REVEALS WHAT'S HAPPENING IN YOUR GUT.



**80%**  
SURVEYS INDICATE THAT  
80 % OF ADULTS IN GERMANY  
EXPERIENCE STRESS  
OCCASIONALLY, WITH 25-30 %  
FACING IT ON A REGULAR BASIS.  
HOWEVER, STRESS ISN'T LIMITED  
TO ADULTS AS ABOUT A QUARTER  
OF CHILDREN ALSO REPORT  
FEELING STRESSED.

## CHRONIC STRESS AND PSYCHOLOGICAL CONSEQUENCES

Chronic stress profoundly impacts our intestinal health and significantly increases the risk of developing IBS. When stress-related disorders are present, this risk is twice as high. IBS significantly diminishes the patient's quality of life and can potentially trigger mental health conditions such as anxiety disorders and depression.

## THE MOST COMMON CAUSES OF STRESS



PROFESSIONAL LIFE



SCHOOL/  
UNIVERSITY



HIGH EXPECTATIONS  
OF ONESELF



PRIVATE  
CONFLICTS

## MICROBIAL NEUROTRANSMITTERS

Changes in the gut microbiome and inflammation also influence the formation of neurotransmitter such as serotonin or histamine and the availability of precursor molecules (tryptophan).

Serotonin is a crucial neurotransmitter for our nervous system, often referred to as the „happiness hormone“ due to its positive impact on emotional well-being. The production of serotonin in the small intestine begins with tryptophan, an essential amino acid obtained through our diet. Both elevated and reduced serotonin levels can give rise to health issues. A deficiency in serotonin can elevate our perception of pain, while an excess can cause diarrhoea.

## GET TESTED BY US NOW:



TRYPTOPHAN  
IN STOOL



SEROTONIN  
IN STOOL



HISTAMINE  
IN STOOL



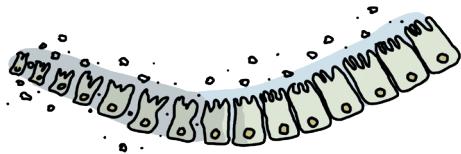
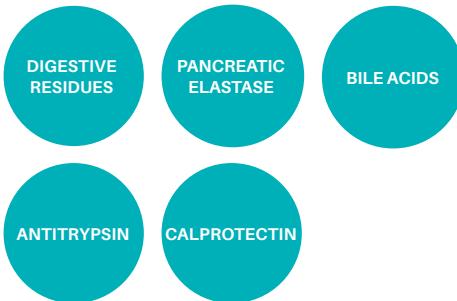
Additionally, certain intestinal bacteria can produce histamine. An imbalance that leads to an overgrowth of these bacteria can result in increased histamine production, causing allergic reactions and inflammation in the body. This imbalance can also affect the intestinal tract, triggering symptoms such as diarrhoea, abdominal pain, and cramps.

## OTHER CAUSES MUST BE EXCLUDED FIRST

Before diagnosing irritable bowel syndrome, other potential causes must be ruled out first. For instance, incomplete digestion of food components can result from a deficiency in digestive enzymes. Similarly, inadequate nutrient absorption due to damaged intestinal mucosa can cause symptoms. biovis offers a comprehensive range of tests to help identify the root cause of these symptoms.

A digestive disorder can be detected by analysing digestive residues or measuring the levels of digestive enzymes and bile acids. If inflammatory reactions have damaged the intestinal mucosa, acute phase proteins will be present in increased amounts in the stool. These proteins are indicative of inflammation and serve as reliable markers.

### GET TESTED BY US NOW:



A STRESSED INTESTINAL MUCOSA CANNOT ABSORB FOOD PROPERLY.

**Food intolerances or carbohydrate intolerances** often cause symptoms similar to those of irritable bowel syndrome. These can be ruled out using various testing procedures. For more information, please contact your trusted healthcare professional.



FOOD INTOLERANCES



LACTOSE  
INTOLERANCE



FRUCTOSE  
MALABSORPTION



SORBITOL  
MALABSORPTION



FOOD INTOLERANCES  
OFTEN CAUSE  
SYMPTOMS.





YOU CAN EASILY  
CORRECT  
DEFICIENCIES BY  
TAKING VITAMIN  
SUPPLEMENTS.

## WHICH VITAMINS ARE IMPORTANT?

Vitamin D and vitamin B6 are particularly important for managing IBS. Vitamin D strengthens the mucosal barrier and positively affects the immune system. It can also interact directly with intestinal bacteria, helping to balance the intestinal microbiome. Vitamin B6 has anti-inflammatory properties and can positively impact IBS. Low levels of vitamin B6 can worsen symptoms, while supplementation can improve them.

Therefore, it is crucial to analyse serum levels of these nutrients. Any deficiencies can be addressed by taking appropriate vitamin supplements.



VITAMIN D



VITAMIN B6



A HEALTHY  
DIET IS VERY  
IMPORTANT.

## BIOVIS OFFERS YOU



### IMPROVING GUT HEALTH WITH DIET

A healthy diet is crucial for maintaining good gut health, as nutrition significantly impacts intestinal function. The right diet for you depends on your specific laboratory results. Discuss your dietary needs with your trusted healthcare professional. For more information, please visit our homepage, where you will find a range of specialist brochures and informational material on various diet-related topics.

To uncover the causes of IBS, biovis provides comprehensive profiles along with analyses of various individual parameters. The '**Irritable Bowel Complete Profile**' offers all the essential information needed to identify the root cause of your symptoms. In the '**Basic**' and '**Midi**' **profiles**, missing parameters are supplemented with empirical data. For further information, please contact the medical specialist you trust.



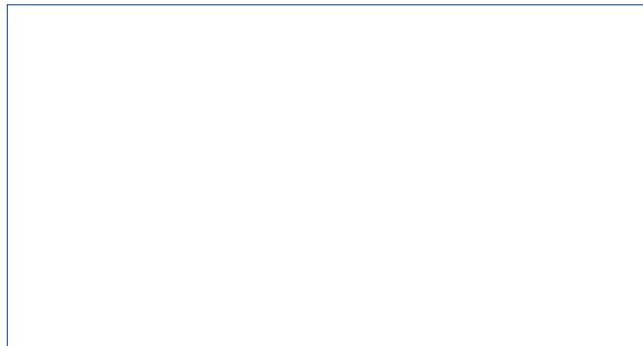


If you have any further  
questions, please contact  
the medical professionals  
you trust.



biovis Diagnostik MVZ GmbH | Brüsseler Str. 18 | 65552 Limburg-Eschhofen  
Phone: +49 6431 21248 0 | Fax: +49 6431 21248 66 | [info@biovis.de](mailto:info@biovis.de)

Presented by



Practice stamp

Further information  
can be found here:



[biovis.de](http://biovis.de)